



RAW SEQUENCE LISTING **ERROR REPORT**

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Application Serial Number: 09/894,912

Source: OIPK

Date Processed by STIC: 2/18/2001

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

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<http://www.uspto.gov/web/offices/pac/checker>

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/894,912

DATE: 07/18/2001

TIME: 10:30:01

Input Set : A:\37260Aseq.txt

Output Set: N:\CRF3\07182001\I894912.raw

5 <110> APPLICANT: Tang et al.

8 <120> TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO NOVEL STEM CELL GROWTH

FACTOR-LIKE

9 POLYPEPTIDES AND POLYNUCLEOTIDES

12 <130> FILE REFERENCE: 28110/37260A

14 <140> CURRENT APPLICATION NUMBER: US/09/894,912

15 <141> CURRENT FILING DATE: 2001-06-28

17 <150> PRIOR APPLICATION NUMBER: To be assigned

18 <151> PRIOR FILING DATE: 2001-04-05

20 <150> PRIOR APPLICATION NUMBER: 60/266,614

21 <151> PRIOR FILING DATE: 2001-02-05

23 <150> PRIOR APPLICATION NUMBER: 60/215,733

24 <151> PRIOR FILING DATE: 2000-06-28

26 <150> PRIOR APPLICATION NUMBER: 09/757,562

27 <151> PRIOR FILING DATE: 2001-01-09

29 <150> PRIOR APPLICATION NUMBER: 09/543,774

30 <151> PRIOR FILING DATE: 2000-04-05

33 <160> NUMBER OF SEQ ID NOS: 48

35 <170> SOFTWARE: PatentIn version 3.0

39 <210> SEQ ID NO: 1

40 <211> LENGTH: 301

41 <212> TYPE: DNA

42 <213> ORGANISM: Homo sapiens

44 <400> SEQUENCE: 1

45 gcacgagacg aggaaaaaaa ggaagggaga ggaaaagaaa aaaacctaataaagagagaaa 60

47 gtaaaagaagc aatacctgac agcaaaagtc tggaatccag caaagaaatc ccagagcaac 120

49 gagaaaacaa acagcagcag aagaagcgaa aagtccaaga taaacagaaa tcggtatcag 180

51 tcagcactgt aactagagg gttccatgag attattgtag actcatgatg ctgctatctc 240

53 aaccagatgc ccaggacagg tgctctagcc attaggacca caaatggaca tgtcagttat 300

55 t 301

58 <210> SEQ ID NO: 2

59 <211> LENGTH: 392

60 <212> TYPE: DNA

61 <213> ORGANISM: Homo sapiens

63 <400> SEQUENCE: 2

64 tggaactcga tatccagata taaataagcg tacaaaatgc aaagctgact gtgatacctg 60

66 tttcaacaaa gatttctgca caaatgtaa aagtggattt tacttacacc ttggaaagtg 120

68 ccttgacaat tgcccagaag ggttggaagc caacaacat actatggagt gtgtcagtat 180

70 tgtgcactgt gaggtcagtg aatggaatcc ttggagtcca tgcacgaaga agggaaaaaac 240

72 atgtggcttc aaaagaggga ctgaaacacg ggtccgagaa ataatacagc atccttcagc 300

74 aaagggtaac ctatgtcccc caacaaatga gacaagaaag tgtacagtgc aaaggaagaa 360

76 gtgtcagaag ggagaacgag gaaaataagg ag 392

79 <210> SEQ ID NO: 3

80 <211> LENGTH: 475

81 <212> TYPE: DNA

82 <213> ORGANISM: Homo sapiens

84 <220> FEATURE:

85 <221> NAME/KEY: misc_feature

Does Not Comply
Corrected Diskette Needed

m 6-7

RAW SEQUENCE LISTING

DATE: 07/18/2001

PATENT APPLICATION: US/09/894,912

TIME: 10:30:01

Input Set : A:\37260Aseq.txt

Output Set: N:\CRF3\07182001\I894912.raw

87 <222> LOCATION: (1)..(475)

88 <223> OTHER INFORMATION: n = A, T, G, or C

91 <400> SEQUENCE: 3

W--> 92 gtnagtaccc ccagggattt cactgagngc ctggactgag gacccgtcna annncnngan 60
 W--> 94 ccacgcgtnc gccacgcgt cccgagagga aaagaaaaaa acctaattta ggagaaagta 120
 96 aagaagcaat acctgacagc ggaagtctgg aatggagcaa agaaatccca gagcaacgag 180
 98 aaaacaaaca gcagcagaag aagcgaaaag tccaagataa acagaaatcg gtatcagtca 240
 100 gcaactgtaca ctgagggtt ccatgagatt attgtagact catgatgctg ctatctcaac 300
 102 cagatgcccc ggacaggtgc tctagccatt aggaccacaa atggacatgt cagttattgc 360
 104 tctgtctaaa caacattccc agtagttgct atattcttca tacaagcata gttaacaaca 420
 W--> 106 aagagccaaa agatcaaaga agggatactt tcagatgggtt gtcttgtgtg cttcn 475

109 <210> SEQ ID NO: 4

110 <211> LENGTH: 473

111 <212> TYPE: DNA

112 <213> ORGANISM: Homo sapiens

114 <220> FEATURE:

115 <221> NAME/KEY: misc_feature

117 <222> LOCATION: (1)..(473)

118 <223> OTHER INFORMATION: n = A, T, G, or C

121 <400> SEQUENCE: 4

W--> 122 tgggcannnn aaanttttga nattcgatcc gcgctgcagg aattcggcac gagacgagga 60
 124 aaaaaaggaa gggagaggaa aagaaaaaaa cctaataaag gagaaagtaa agaagcaata 120
 126 cctgacagca aaagtctgga atccagcaga gaaatccag agcaacgaga aaacaaacag 180
 128 cagcagaaga agcgaaaagt ccaagataaa cagaaatcgg tatcagtcag cactgtacac 240
 130 tagagggttc catgagatta ttgtagactc atgatgctgc tatctcaacc agatgccag 300
 132 gacaggtgct ctagccatta ggaccacaaa tggacatgtc agttattgct ctgtctaaac 360
 134 aacattccca gtagttgcta tattcttcat acaagcatag ttaacaacaa agagccaaaa 420
 136 gatcaaagaa gggatacttt cagatgggtg tcttgtgtgc ttctctgcat ttt 473

139 <210> SEQ ID NO: 5

140 <211> LENGTH: 462

141 <212> TYPE: DNA

142 <213> ORGANISM: Homo sapiens.

145 <220> FEATURE:

146 <221> NAME/KEY: misc_feature

148 <222> LOCATION: (1)..(462)

149 <223> OTHER INFORMATION: n = A, T, G, or C

152 <400> SEQUENCE: 5

W--> 153 tgggagannnn ntttgaaact gagatcgctc canacncnac nangaataaa aggaagggag 60
 155 agggaaagaa aaaaaccta taaaggagaa agtaaagaat caatttctga cagcaaaagt 120
 157 ctggaatcca tcaaagaaat cccatatcaa cgagaaaaca gacagcagca caaaaagcga 180
 159 aaagtccaag ataaacagaa atcggtatca gtcagcactg tacactagag ggttccatga 240
 161 gattattgta gactcatgat gctgctatct caaccagatg cccaggacag gtgctctatc 300
 163 cattacgacc acaaatggac atgtcagtta ttgctctgtc taaacaacat tcccagtagt 360
 165 tgctatatct ttcatacaag catagttaac aacaaagagc caaaagatca aagaagggat 420
 167 actttcagat ggttgtcttg tgtgcttctc tgcattttta aa 462

170 <210> SEQ ID NO: 6

171 <211> LENGTH: 384

172 <212> TYPE: DNA

173 <213> ORGANISM: Homo sapiens

RAW SEQUENCE LISTING

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Input Set : A:\37260Aseq.txt

Output Set: N:\CRF3\07182001\I894912.raw

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176 <400> SEQUENCE: 6
177 aataatgtgt acaaaatgca aagctgactg tgatacctgt ttcaacaaaa atttctgcac      60
179 aaaatgtaaa agtggatttt acttacacct tggaaagtgc cttgacaatt gcccagaagg      120
181 gttggaagcc aacaaccata ctatggagtg tgtcagtatt gtgcactgtg aggtcagtga      180
183 atggaatcct tggagtcctat gcacgaagaa gggaaaaaca tgtggcttca aaagaggggac      240
185 tgaaacacgg gtccgagaaa taatacagca tccttcagca aagggttaacc tatgtccccc      300
187 aacaaatgag acaagaaagt gtacagtgc aaggaagaag tgtcagaagg gagaacgagg      360
189 aaaaaaagga agggagagga aaag                                     384

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192 <210> SEQ ID NO: 7

193 <211> LENGTH: 390

194 <212> TYPE: DNA

195 <213> ORGANISM: Homo sapiens

197 <220> FEATURE:

198 <221> NAME/KEY: misc_feature

200 <222> LOCATION: (1)..(390)

201 <223> OTHER INFORMATION: n = A, T, G, or C

204 <400> SEQUENCE: 7

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205 cgttgctctg ggatttcttt gctggattcc agacttttgc tgtcagggtat tgcttcttta      60
207 ctttctcctt tattaggttt ttttcttttc ctctcccttc ctttttttcc tcgttctccc      120
209 ttctgacact tcttcttttg cactgtacac tttcttgtct catttggttg gggacatagg      180
211 ttaccctttg ctgaaggatg ctgtattatt tctcggaccg gtgtttcagt ccctcttttg      240
213 aagccacatg tttttccctt ctctgtgcac ggactccaag gattccattc actgacctca      300
215 cagtgcacaa tactgacaca ctccatagta tgggtgttgg ctccaaccc ttctgggcaa      360
217 ttgtcaaggc actttccaag gtgtaagtan      390

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220 <210> SEQ ID NO: 8

221 <211> LENGTH: 1345

222 <212> TYPE: DNA

223 <213> ORGANISM: Homo sapiens

225 <220> FEATURE:

226 <221> NAME/KEY: misc_feature

228 <222> LOCATION: (321)..(1235)

229 <223> OTHER INFORMATION: similar to gi4519541 in the genpept database release 114,

Run wit

230 h FASTXY3.3t00, default parameter

233 <400> SEQUENCE: 8

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234 ggcggccgcc cgggcgctcc tggaaacccg gttcgcggcg atgccagcca ccccagcgaa      60
236 gccgccgcag ttcagtgtct ggataatttg aaagtacaat agttggtttc cctgtccacc      120
238 cgccccactt cgcttgccat cacagcacgc ctatcggatg tgagaggaga agtcccgtg      180
240 ctcgggcact gtctatatac gcctaacacc tacatatatt taaaaaacat taaatataat      240
242 taacaatcaa aagaaagagg agaaaggagg ggaagcatta ctgggttact atgcacttgc      300
244 gactgatttc ttggcttttt atcattttga actttatgga atacatcggc agccaaaacg      360
246 cctcccgggg aaggcgccag cgaagaatgc atcctaacgt tagtcaaggc tgccaaggag      420
248 gctgtgcaac atgctcagat tacaatggat gtttgtcatg taagcccaga ctattttttg      480
250 ctctggaaag aattggcatg aagcagattg gagtatgtct catcttcatg tccaagtgga      540
252 tattatggaa ctcgatatcc agatataaat aatgtgtaca aaatgcaaag ctgactgtga      600
254 tacctgtttc aacaaaaatt tctgcacaaa atgtaaaagt ggattttact tacaccttgg      660
256 aaagtgcctt gacaattgcc cagaagggtt ggaagccaac aaccatacta tggagtgtgt      720
258 cagtattgtg cactgtgagg tcagtgaatg gaatccttgg agtccatgca cgaagaaggg      780
260 aaaaacatgt ggcttcaaaa gagggactga aacacgggtc cgagaaataa tacagcatcc      840
262 ttcagcaaag ggtaacctat gtcccccaac aaatgagaca agaaagtgt aagtgtcaaa      900

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Input Set : A:\37260Aseq.txt

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264 gaagaagtgt cagaagggag aacgaggaaa aaaaggaagg gagaggaaaa gaaaaaaacc 960
266 taataaagga gaaagtaaag aagcaatacc tgacagcaaa agtctggaat ccagcaaaga 1020
268 aatcccagag caacgagaaa acaaacagca gcagaagaag cgaaaagtcc aagataaaca 1080
270 gaaatcggtt tcagtcagca ctgtacacta gagggttcca tgagattatt gtagactcat 1140
272 gatgctgcta tctcaaccag atgcccagga cagggtgctct agccattagg accacaaatg 1200
274 gacatgtcag ttattgctct gtctaaacaa cattcccagt agttgctata ttcttcatac 1260
276 aagcatagtt aacaacaaag agccaaaaga tcaaagaagg gatactttca gatgggtgtc 1320
278 ttgtgtgctt ctctgcattt ttaaa 1345
281 <210> SEQ ID NO: 9
282 <211> LENGTH: 1343
283 <212> TYPE: DNA
284 <213> ORGANISM: Homo sapiens
286 <220> FEATURE:
287 <221> NAME/KEY: CDS
289 <222> LOCATION: (291)..(1109)
292 <400> SEQUENCE: 9
293 gcggccgccc cgggcggtcc tggaaccccg gttcgcggcg atgccagcca cccagcgaa 60
295 gccgccgcag ttcagtgtt ggataatttg aaagtacaat agttggttc cctgtccacc 120
297 cgccccactt cgcttgccat cacagcacgc ctatcggat tgagaggaga agtcccgcgtg 180
299 ctcgggcact gtctatatac gcctaacacc tacatatatt ttaaaaacat taaatataat 240
301 taacaatcaa aagaaagagg agaaaggaag ggaagcatta ctgggttact atg cac 296
302 Met His
303 1
305 ttg cga ctg att tct tgg ctt ttt atc att ttg aac ttt atg gaa tac 344
306 Leu Arg Leu Ile Ser Trp Leu Phe Ile Ile Leu Asn Phe Met Glu Tyr
307 5 10 15
309 atc ggc agc caa aac gcc tcc cgg gga agg cgc cag cga aga atg cat 392
310 Ile Gly Ser Gln Asn Ala Ser Arg Gly Arg Arg Gln Arg Arg Met His
311 20 25 30
313 cct aac gtt agt caa ggc tgc caa gga ggc tgt gca aca tgc tca gat 440
314 Pro Asn Val Ser Gln Gly Cys Gln Gly Gly Cys Ala Thr Cys Ser Asp
315 35 40 45 50
319 tac aat gga tgt ttg tca tgt aag ccc aga cta ttt ttt gct ctg gaa 488
320 Tyr Asn Gly Cys Leu Ser Cys Lys Pro Arg Leu Phe Phe Ala Leu Glu
321 55 60 65
323 aga att ggc atg aag cag att gga gta tgt ctc tct tca tgt cca agt 536
324 Arg Ile Gly Met Lys Gln Ile Gly Val Cys Leu Ser Ser Cys Pro Ser
325 70 75 80
327 gga tat tat gga act cga tat cca gat ata aat aag tgt aca aaa tgc 584
328 Gly Tyr Tyr Gly Thr Arg Tyr Pro Asp Ile Asn Lys Cys Thr Lys Cys
329 85 90 95
331 aaa gct gac tgt gat acc tgt ttc aac aaa aat ttc tgc aca aaa tgt 632
332 Lys Ala Asp Cys Asp Thr Cys Phe Asn Lys Asn Phe Cys Thr Lys Cys
333 100 105 110
335 aaa agt gga ttt tac tta cac ctt gga aag tgc ctt gac aat tgc cca 680
336 Lys Ser Gly Phe Tyr Leu His Leu Gly Lys Cys Leu Asp Asn Cys Pro
337 115 120 125 130
339 gaa ggg ttg gaa gcc aac aac cat act atg gag tgt gtc agt att gtg 728
340 Glu Gly Leu Glu Ala Asn Asn His Thr Met Glu Cys Val Ser Ile Val

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RAW SEQUENCE LISTING

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Input Set : A:\37260Aseq.txt

Output Set: N:\CRF3\07182001\I894912.raw

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341          135          140          145
343 cac tgt gag gtc agt gaa tgg aat cct tgg agt cca tgc acg aag aag      776
344 His Cys Glu Val Ser Glu Trp Asn Pro Trp Ser Pro Cys Thr Lys Lys
345          150          155          160
347 gga aaa aca tgt ggc ttc aaa aga ggg act gaa aca cgg gtc cga gaa      824
348 Gly Lys Thr Cys Gly Phe Lys Arg Gly Thr Glu Thr Arg Val Arg Glu
349          165          170          175
351 ata ata cag cat cct tca gca aag ggt aac cta tgt ccc cca aca aat      872
352 Ile Ile Gln His Pro Ser Ala Lys Gly Asn Leu Cys Pro Pro Thr Asn
353          180          185          190
355 gag aca aga aag tgt aca gtg caa agg aag aag tgt cag aag gga gaa      920
356 Glu Thr Arg Lys Cys Thr Val Gln Arg Lys Lys Cys Gln Lys Gly Glu
357 195          200          205          210
359 cga gga aaa aaa gga agg gag agg aaa aga aaa aaa cct aat aaa gga      968
360 Arg Gly Lys Lys Gly Arg Glu Arg Lys Arg Lys Lys Pro Asn Lys Gly
361          215          220          225
363 gaa agt aaa gaa gca ata cct gac agc aaa agt ctg gaa tcc agc aaa      1016
364 Glu Ser Lys Glu Ala Ile Pro Asp Ser Lys Ser Leu Glu Ser Ser Lys
365          230          235          240
367 gaa atc cca gag caa cga gaa aac aaa cag cag cag aag aag cga aaa      1064
368 Glu Ile Pro Glu Gln Arg Glu Asn Lys Gln Gln Gln Lys Lys Arg Lys
369          245          250          255
371 gtc caa gat aaa cag aaa tcg gta tca gtc agc act gta cac tag      1109
372 Val Gln Asp Lys Gln Lys Ser Val Ser Val Ser Thr Val His
373          260          265          270
375 agggttccat gagattattg tagactcatg atgctgctat ctcaaccaga tgcccaggac      1169
377 aggtgctcta gccattagga ccacaaatgg acatgtcagt tattgctctg tctaaacaac      1229
379 attcccagta gttgctatat tcttcataca agcatagtta acaacaaaga gccaaaagat      1289
381 caaagaaggg atactttcag atgggtgtct tgtgtgcttc tctgcatttt taaa      1343
384 <210> SEQ ID NO: 10
385 <211> LENGTH: 272
386 <212> TYPE: PRT
387 <213> ORGANISM: Homo sapiens
390 <400> SEQUENCE: 10
392 Met His Leu Arg Leu Ile Ser Trp Leu Phe Ile Ile Leu Asn Phe Met
393 1          5          10          15
396 Glu Tyr Ile Gly Ser Gln Asn Ala Ser Arg Gly Arg Arg Gln Arg Arg
397          20          25          30
400 Met His Pro Asn Val Ser Gln Gly Cys Gln Gly Gly Cys Ala Thr Cys
401          35          40          45
404 Ser Asp Tyr Asn Gly Cys Leu Ser Cys Lys Pro Arg Leu Phe Phe Ala
405          50          55          60
408 Leu Glu Arg Ile Gly Met Lys Gln Ile Gly Val Cys Leu Ser Ser Cys
409 65          70          75          80
412 Pro Ser Gly Tyr Tyr Gly Thr Arg Tyr Pro Asp Ile Asn Lys Cys Thr
413          85          90          95
416 Lys Cys Lys Ala Asp Cys Asp Thr Cys Phe Asn Lys Asn Phe Cys Thr
417          100          105          110
420 Lys Cys Lys Ser Gly Phe Tyr Leu His Leu Gly Lys Cys Leu Asp Asn

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<210> 31
<211> 2384
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (511)..(1347)

<400> 31

see next page for errata portion of seq. 31

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aggggaaaac tattttatta cctgcctatg ggtccacctg gaactaaagg gatactactt 2307

tctaacaagg tgtatctagt aggagagaaa gccaccacaa taaatatatt tgттаатaгn 2367

taaaaaaaaa aaaaaaa

2384

see item 9
on Encl
summary
sheet

→ Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/894,912

DATE: 07/18/2001

TIME: 10:30:03

Input Set : A:\37260Aseq.txt

Output Set: N:\CRF3\07182001\I894912.raw

L:14 M:270 C: Current Application Number differs, Replaced Application Number
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1201 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:31
L:1201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31